



National Aeronautics and Space Administration
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Inside Wallops

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Students Worldwide Participating in Shuttle Mission

Students in schools worldwide from first grade to undergraduates are participating in the STS-108 mission as their experiments venture into space.

The Space Shuttle Small Payloads Project (SSPP), based at NASA Goddard Space Flight Center, Greenbelt, and the Wallops Flight Facility is providing flight opportunities for nearly 40 experiments designed to engage students in space and scientific exploration.

"Providing students the experience of being scientific investigators using the microgravity environment provided by the space shuttle reinforces their understanding of science, mathematics and technology," said Frank Owens, Director, Education Division, NASA Headquarters.

The most noticeable of the educational experiments on STS-108 is the Student Tracked Atmospheric Research Satellite for Heuristic International Networking Experiment (STARSHINE-2). STARSHINE is an education program for students around the world to help construct a satellite and learn about satellite orbits and natural events that affect these orbits.

To be deployed after the Shuttle undocks from the International Space Station, the beach-ball size satellite is covered with nearly 900 aluminum mirrors that have been polished by almost 25,000 students around the world. The satellite should be visible on Earth with the naked eye.

Utah State University, Logan; Penn State University; State College; and the Argentine Association of Space Technology, Argentina are flying Get-Away-Special canisters that include experiments that engage area students in space research. These experiments include the development of a low-cost, reusable plant growth chamber; examining the effects of the space environment on crystal growth, popcorn and seeds; and a water purification process.

NASA will fly three Space Experiment Module (SEM) payloads carrying 30 experiments designed by students from the United States, Argentina, Morocco, Portugal, and Australia.

Three of these experiments were developed by high school students in Maryland, Illinois and Washington and were selected for flight through the NASA Student Involvement Program. These experiments will study the affect of microgravity on brine shrimp and

their use as a food source for fish during long duration space missions; examine three dimensional resonance modes in microgravity and the relationship to structures made for the microgravity environment; and research how electrical currents flow in the space environment.



Photo by SSPP Office

Students from New Oxford Elementary School prepare samples for flight with a resident of the Brethren Home Retirement Community, both in Hanover, Pa., during integration this summer at Wallops.

Another experiment will bridge generations as students from New Oxford Elementary School have teamed with residents at the Brethren Home Retirement Community, both in Hanover, Pa. The groups will examine how the space environment affects the growth of soy seeds

A complete list and descriptions of SSPP experiments on STS-108 can be found at <http://www.wff.nasa.gov>

Women of Wallops Expanding Their Reach

Take Our Daughters to Work Day will be expanding into space during the STS-108 mission thanks to the efforts of the Women of Wallops.

The Women of Wallops Federal Women's Program annually holds a variety of activities, as part of the national event, for daughters of employees with NASA, the U.S. Navy and NOAA.

Among the activities from the April 2001 daughter's day, students toured the Space Experiment Module (SEM) facility and prepared vials of wildflower seeds as a SEM opportunity. The experiment is flying on the STS-108 mission as part of SEM-15.

The purpose of the experiment is to determine the effects of microgravity on wildflower seeds. Students also are keeping a control group on Earth.

After the return of the space shuttle Endeavor, the experiment "Countdown to Wildflowers" will be returned to Wallops. Both sets of seeds will then be planted to compare their germination rates, as well as compare their plants, flowers and seeds.

The experiment may be de-integrated as an activity for Daughter's Day in 2002.

More information can be found on the experiment at: <http://www.wff.nasa.gov/~FWP/news/todtwd2001/ontheshuttle.html>

ULDB Team Receives Prestigious Achievement Award

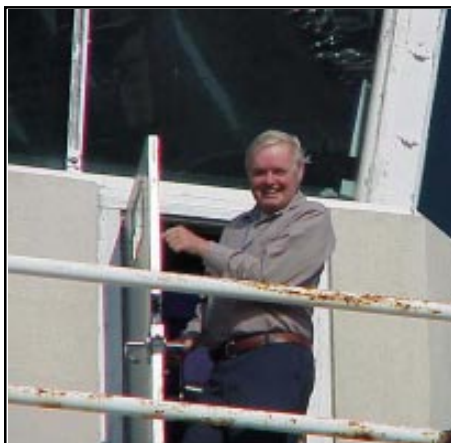
NASA Wallops Flight Facility's Ultra Long Duration Balloon (ULDB) team has received the 2001 Achievement Award from The Lighter-Than-Air-Society. The award was presented to NASA's Balloon Program Office, New Mexico State University's Physical Science Laboratory, Las Cruces; and Raven Industries, Inc., Sulphur Springs, Texas, at the Society's 49th Annual Banquet held recently in Akron, Ohio.

The award was given for two record flights of unpiloted super-pressure balloons. The ULDB team's 2.1 million cubic foot balloon launched from Ft. Sumner, N.M., flew a record 30 hours in June 2000. A 18.38 million cubic foot balloon launched from Alice Springs, Australia, in March 2001 reached an altitude of 107,500 feet and pressure of 1.2 millibars. The 20-hour flight surpassed the previous record for the largest super-pressure balloon flown.

The Lighter-Than-Air Society was founded in December 1952 to further knowledge of the history, science and techniques of buoyant flight.



Wallops does have an airport!



Tom Bettis



F-18

NASA Wallops Flight Facility's research airport consists of three runways; two hangers; a control tower staffed by Tom (Tower Tom) Bettis and Paul (Red) Salyers; crash, fire and rescue units at the Wallops Fire Department, which is staffed 24 hours a day; and airport related instrumentation.

P-3 Orion



The airport provides facilities, instrumentation and operating space for a wide variety of aircraft and aircraft activities. Department of Defense aircraft are often seen operating from and in the vicinity of the Wallops Airport. Four F-18 aircraft out of Andrews Air Force Base and a P-3 Orion aircraft from Patuxent River Naval Station were in the area doing maneuvers recently.



F-18

Influenza Vaccinations

Beginning December 5, the Health Unit will offer influenza immunizations to NASA civil servants by appointment until current supplies are exhausted. There is a required 20 minute wait in the Health Unit after receiving the vaccine.

The flu is a virus that may change from year to year. Therefore, a vaccination is recommended every year. Per CDC Guidelines, individuals that are considered high-risk are first priority to receive the vaccine.

You are considered high risk if you:

- are over 65 years of age
- have chronic lung disease
- have heart disease
- have diabetes or other metabolic disorder
- have anemia
- have illnesses or treatments that weaken the immune system (long-term treatment with drugs such as steroids; cancer treatment with x-rays or drugs; HIV/AIDS or other diseases that affect the immune system)
- are pregnant and your doctor advises vaccination
- are taking care of a high-risk person

There have been some reports of fever, restlessness, muscle soreness, and some allergic reactions to the flu shot. However, serious reactions are very rare and you cannot get the flu from the vaccine.

There is a Vaccine Information Sheet that patients will need to read before signing consent to receive the vaccine.

For more information refer to <http://www.cdc.gov> or call the Health Unit on x1766.

Director's all Hands Meeting Scheduled

The December Director's All Hands meeting continues the series by Goddard Directorates to give employees a perspective on accomplishments, current work, challenges and future opportunities.

The next All Hands meeting is presented by Code 200 on December 4 at 9 a.m., in the Building 8 Auditorium.

Wallops employees can view the presentations on Wallops TV Channel 6. Questions may be called in directly to Greenbelt on x66-9036.

Resume Building Sessions

The Office of Human Resources will offer courses on Resume Building at Wallops in December and January. The sessions will be conducted in Building E-104, Room 310. Training forms and pre-registration are not required.

December 13, 2001
10:30 a.m. to noon
12:30 to 2 p.m.

January 16, 2001
10:30 a.m. to noon
12:30 to 2 p.m.

For more information about NASA STARS or the Resume Building Sessions, contact Ann Richmond at 66-7571 or Denise Davis at 66-1382.

NASA GSFC Badge Updates

Employees are reminded that all employees and visitors must display their NASA or GSFC badge at or above the waistline while on the Main Base and Island.

Many civil servants have laminated badges that are obsolete and must be replaced as soon as possible. The new NASA badges are not laminated. The printing and photographs are applied directly to white plastic cards. If you currently have a laminated badge, obtain a replacement by visiting the Security Office at the Reception Center in Building N-127.

Safety and security do's and don'ts

Do politely remind individuals of the mandatory badge policy if you observe them not conspicuously displaying a NASA or GSFC badge.

Do inform the Security Force, x1333, of anyone you observe acting suspiciously or not complying with the badge display policy.

Do ensure that you comply with GSFC's escort policy when sponsoring visitors and report to the Security Force any visitors you observe not being properly escorted.

Don't forget that safety and security are employee responsibilities and key elements of mission success.

Don't leave your badge in your vehicle. A badge stolen from a vehicle can become the "key" that allows access by unauthorized individuals.

**Annual Awards Ceremony
Followed by
Holiday Party
December 14**



Employees are Invited

An employee coffee will be held 8 to 9 a.m., Wednesday, December 5 in the cafeteria. All employees — civil service and contractors — are invited. The first 30-minutes is a casual gathering. The second 30-minutes is an informal discussion on current topics from senior management. Topics to be discussed include Mission 2005, the FY'02 budget, the future leadership of Wallops and NASA, and security.

Refreshments will be available.

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<http://www.wff.nasa.gov>